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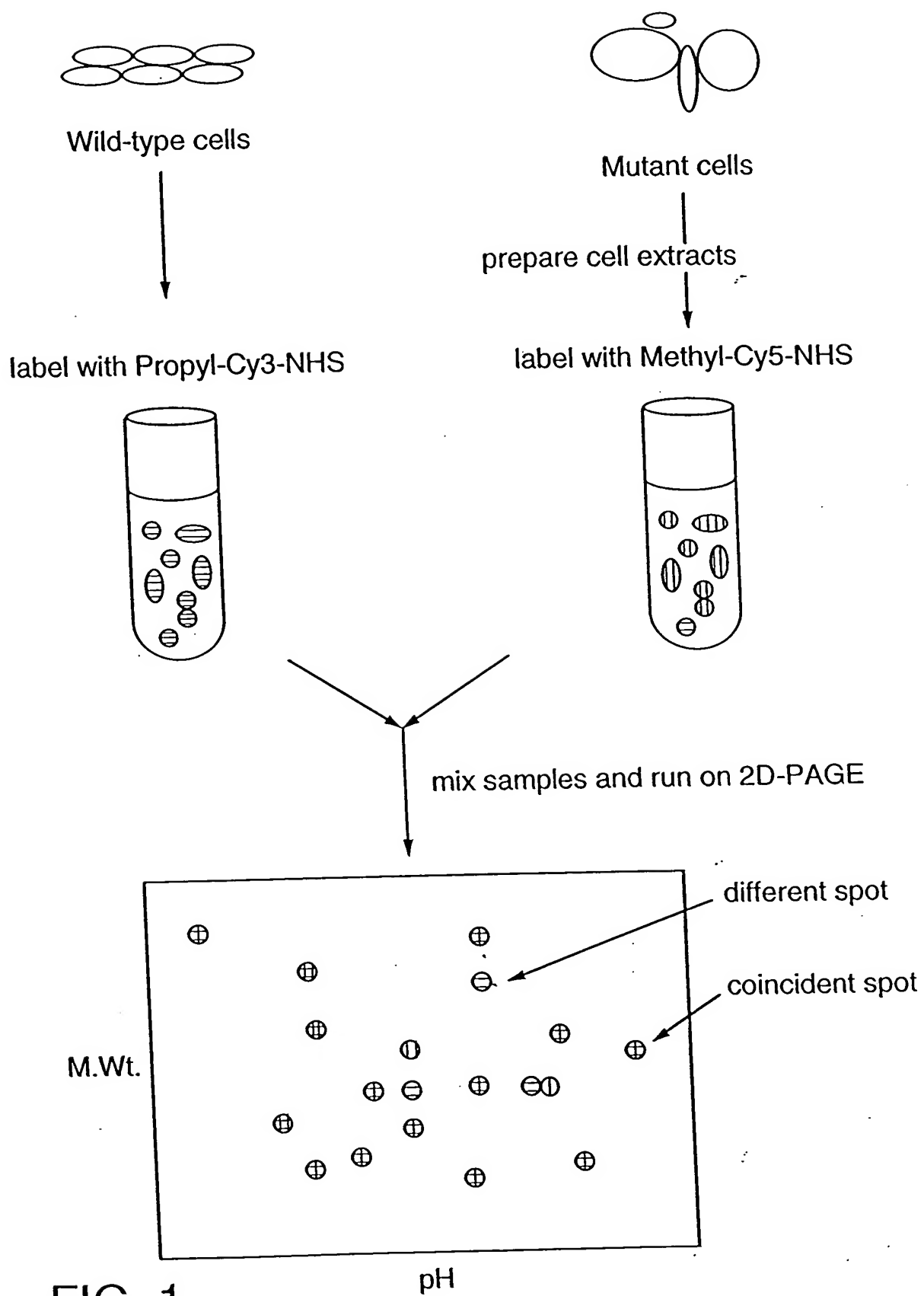


FIG. 1

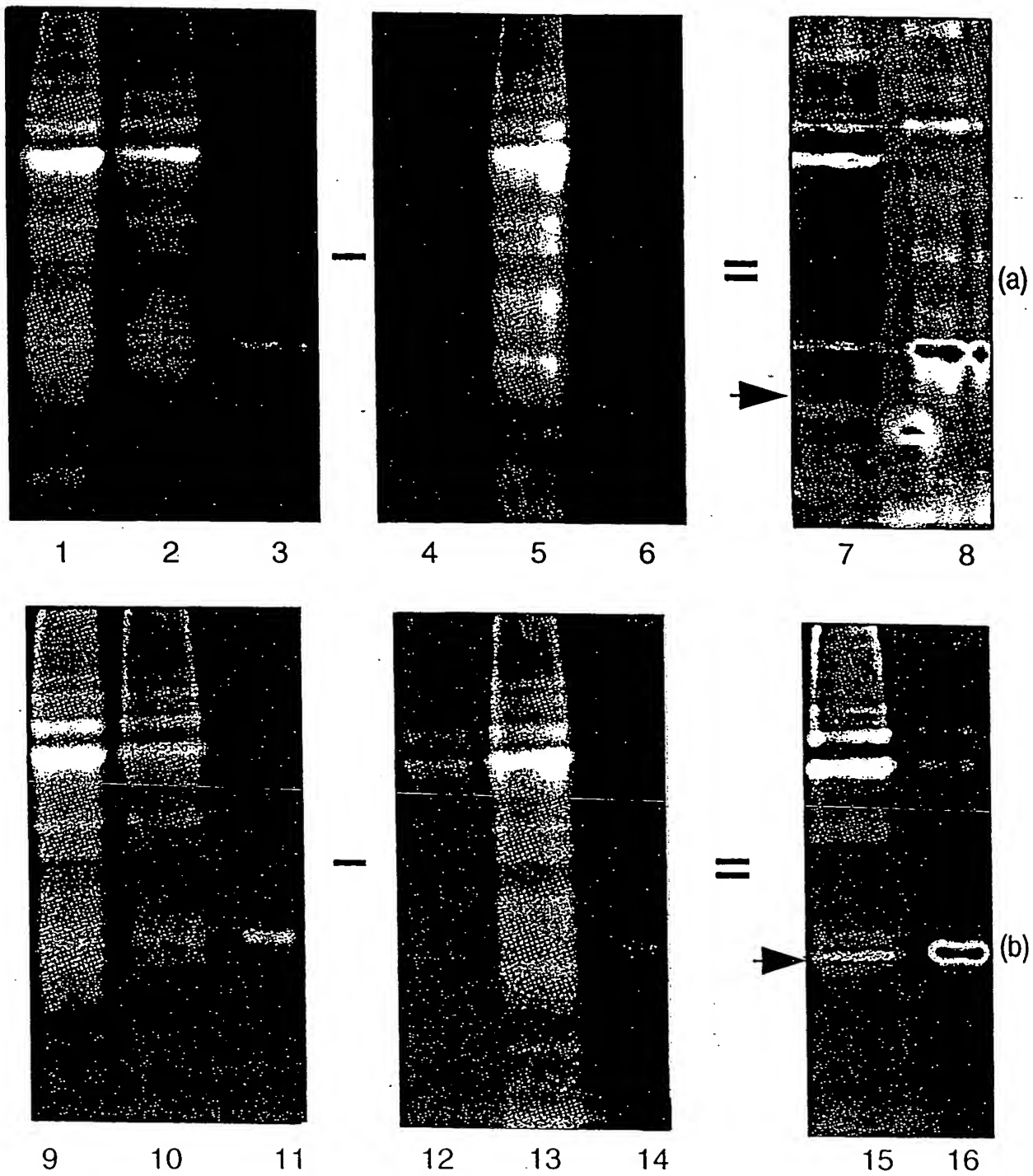


FIG. 2

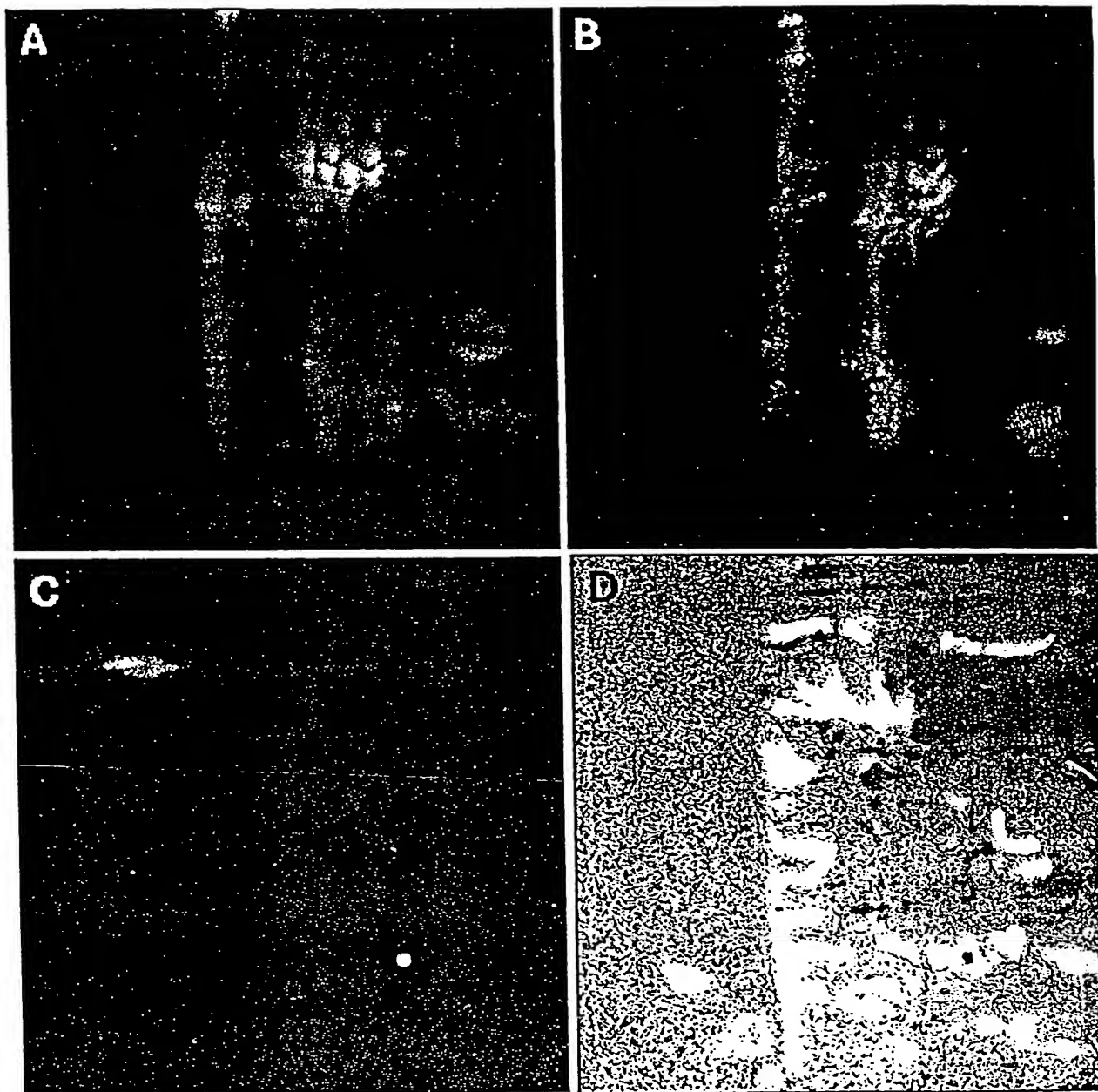


FIG. 3

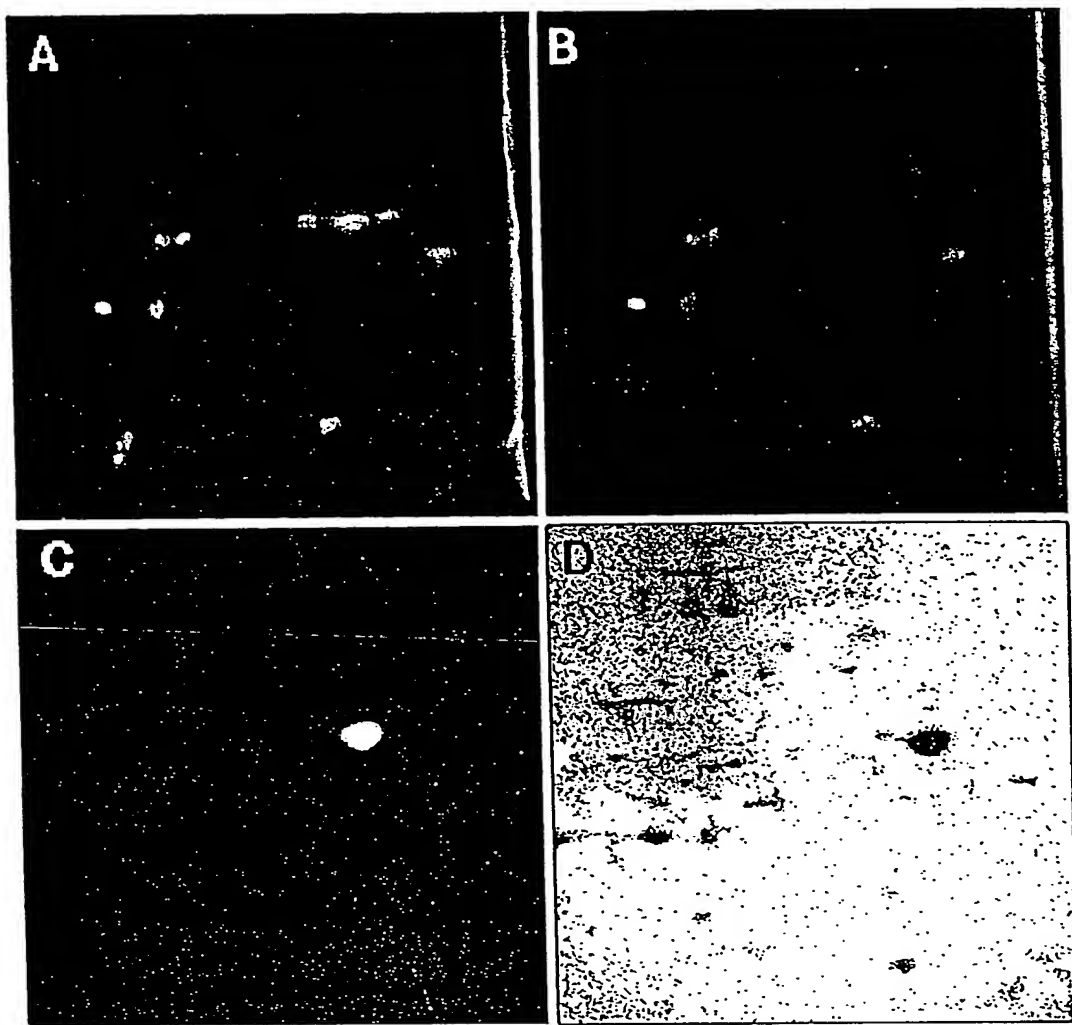


FIG. 4

Figure 5

Labeling of model glycoproteins – analysis by SDS-PAGE

Cy 2 lysine labeling of protein

1 2 3 4



100 kDa



(a)

Cy 3 hydrazide labeling

1 2 3 4



← **Transferrin** →
(~76 kDa)

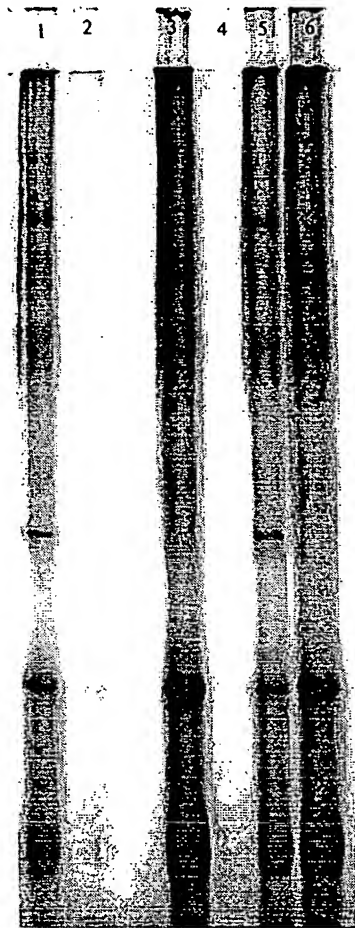
← **Trypsin inhibitor** →
(~ 20 kDa)

(b)

Figure 6

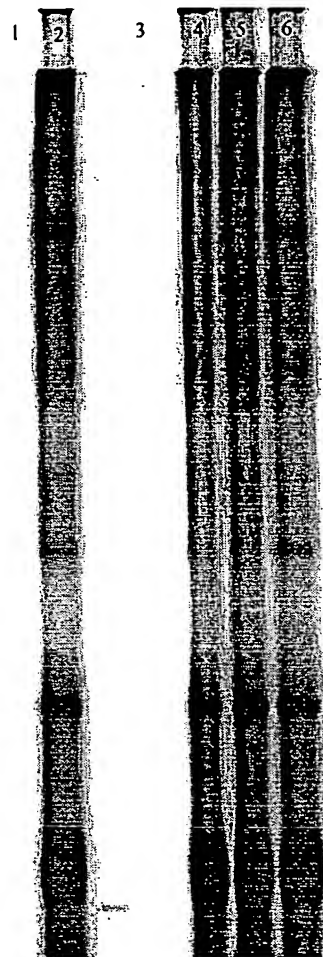
Differential SDS-PAGE analysis of simple protein mixes.

Cy3 hydrazide labeling



(a)

Cy5 hydrazide labeling



(b)

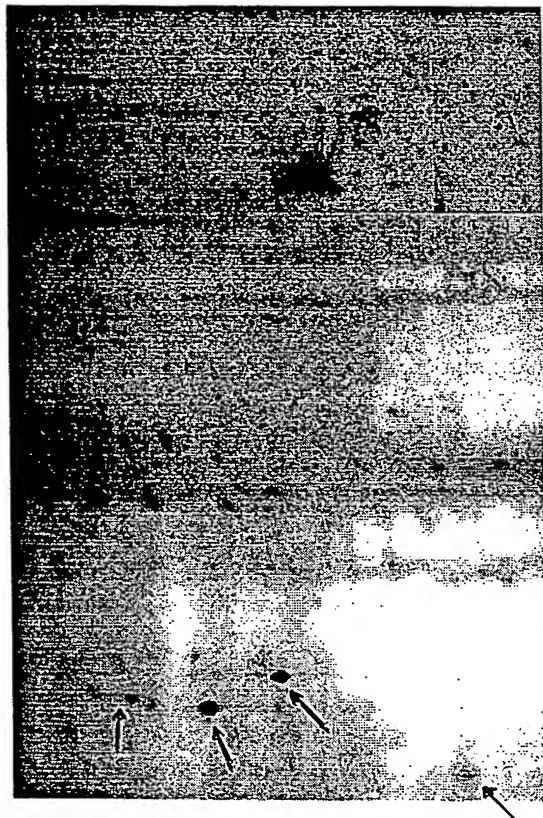
← **Transferrin** →
(~76kDa)

← **Carbonic
anhydrase** →
(~30 kDa)

Figure 7

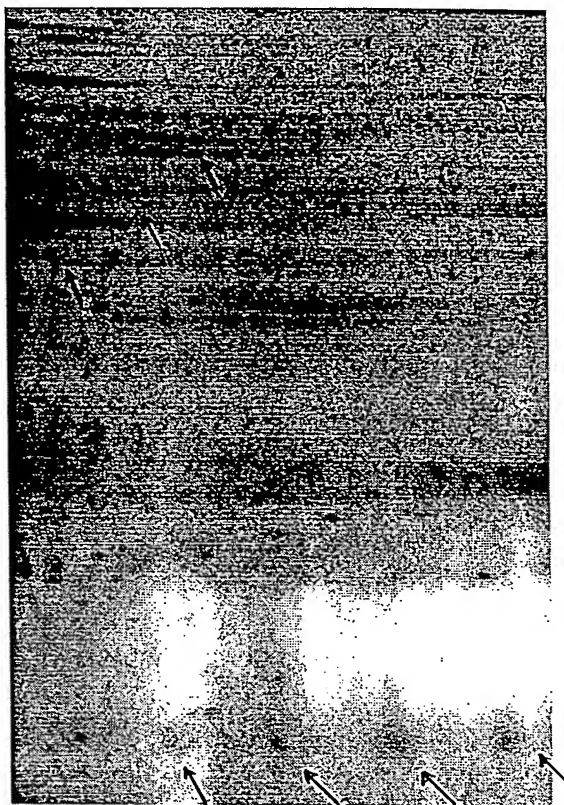
Differential 2DE analysis of mammalian cell extracts

Cy3 hydrazide labeling of HBL100 cell extract



(a)

Cy5 hydrazide labeling of BT474 cell extract



(b)

Arrows indicate some of the qualitative and quantitative differences between the two cell extracts.

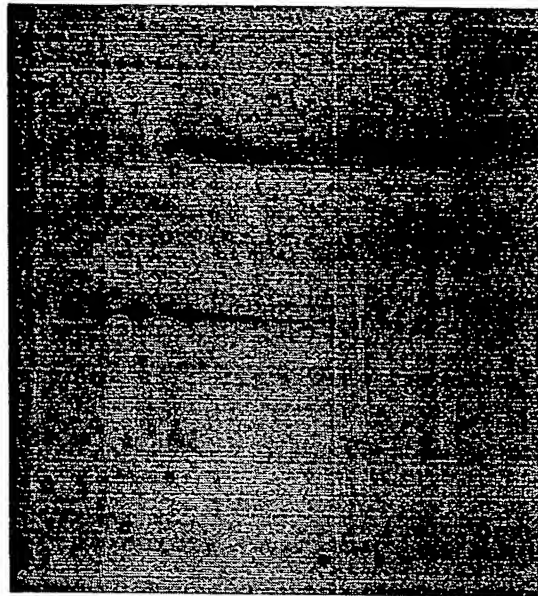
Figure 8

Differential 2DE analysis of mammalian cell extract with exogenously added protein

Cy3 hydrazide labeling of BT474 cell extract

kDa

Cy5 hydrazide labeling of BT474 cell extract
with exogenously added Cy5-labeled proteins



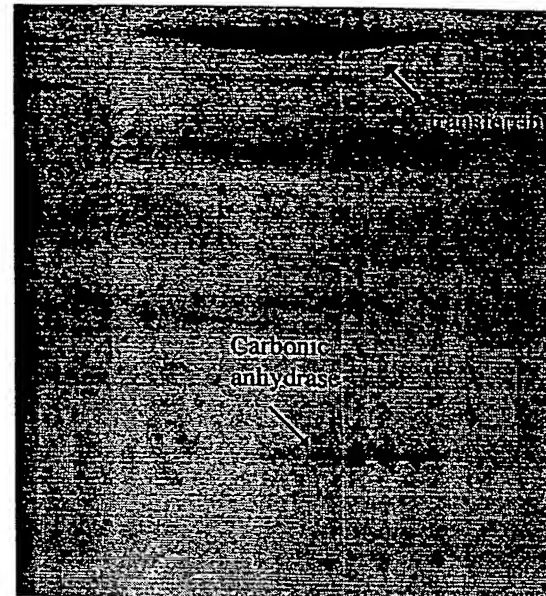
~5

pH

~8

~76

~29



~5

pH

~8

Carbonic
anhydrase

GammaH₂O₂

Figure 9

Ion exchange chromatography of Cy3 and Cy5 labeled proteins

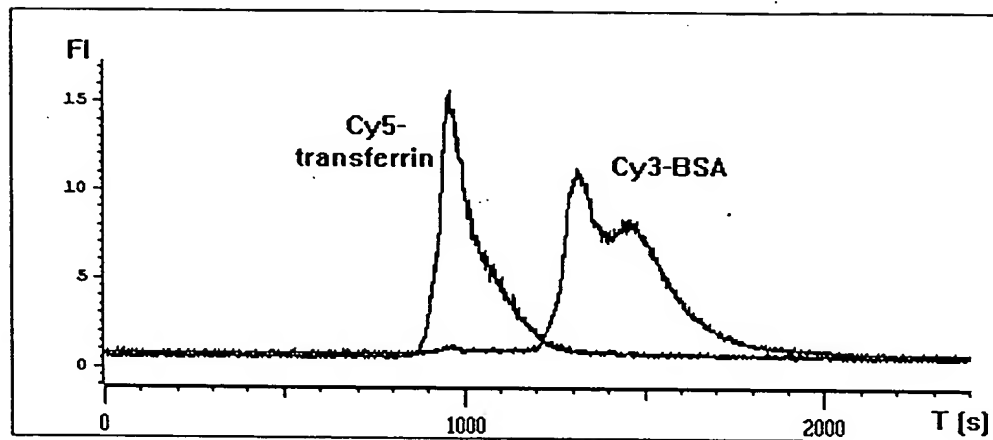


Figure 10

Ion exchange chromatography of a mixture of Cy5 labeled proteins

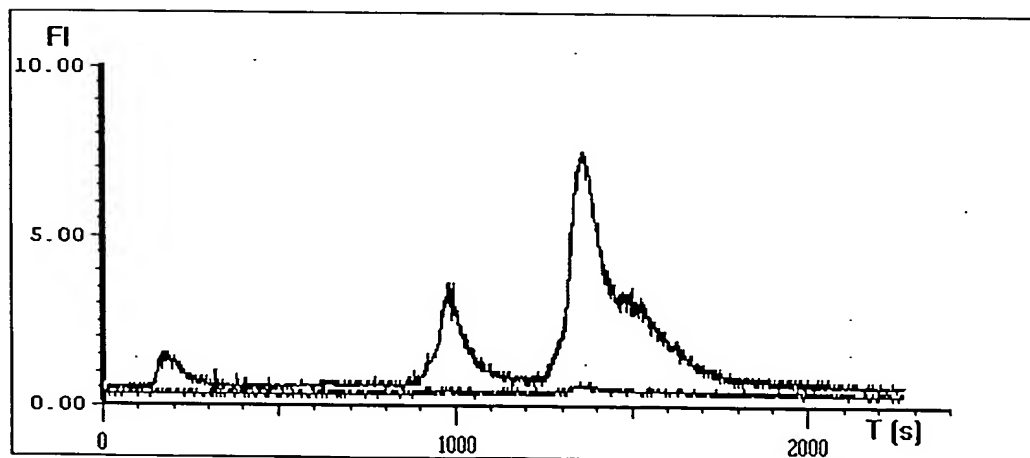


Figure 11

Reverse phase chromatography of a mixture of Cy5 labeled proteins

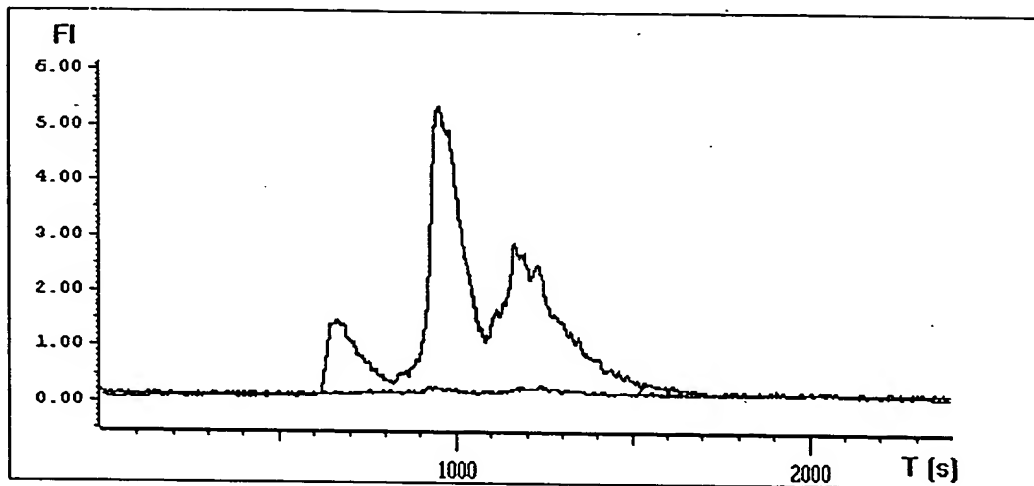


Figure 12

Size exclusion chromatography of a mixture of Cy3 labeled proteins

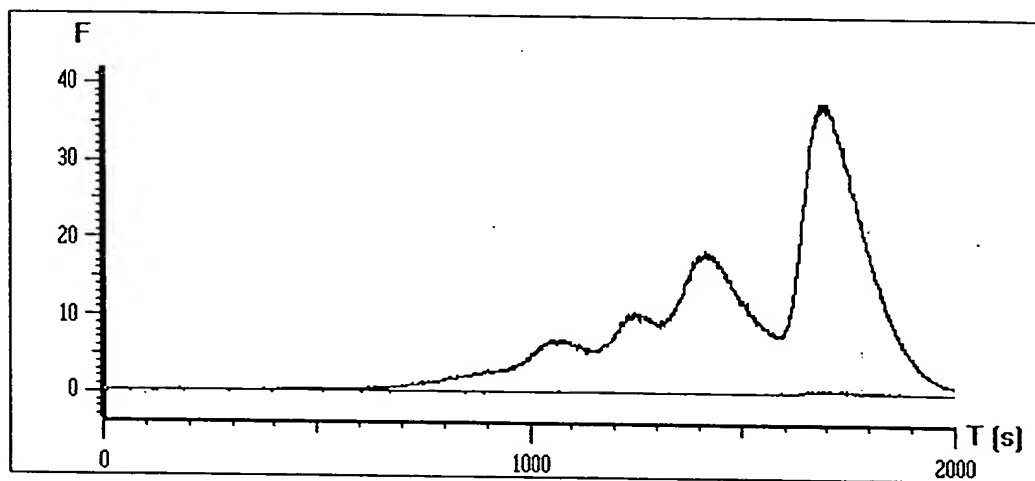


Figure 13

Differential analysis of mixtures of Cy3 and Cy5 labeled proteins by size exclusion chromatography

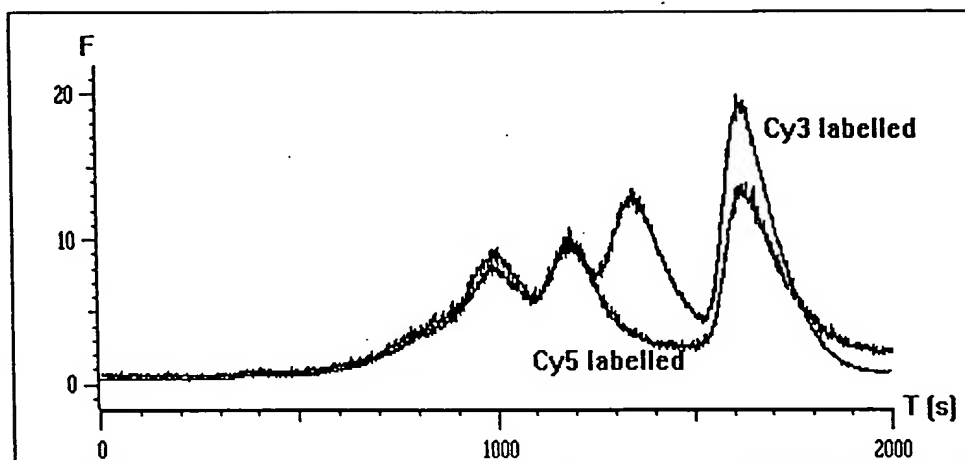


Figure 14

Differential analysis of mixtures of Cy3 and Cy5 labeled proteins by ion exchange chromatography

